

Hanford Cleanup



NAS Technology Roadmap Committee Meeting
October 31, 2007



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Hanford Site

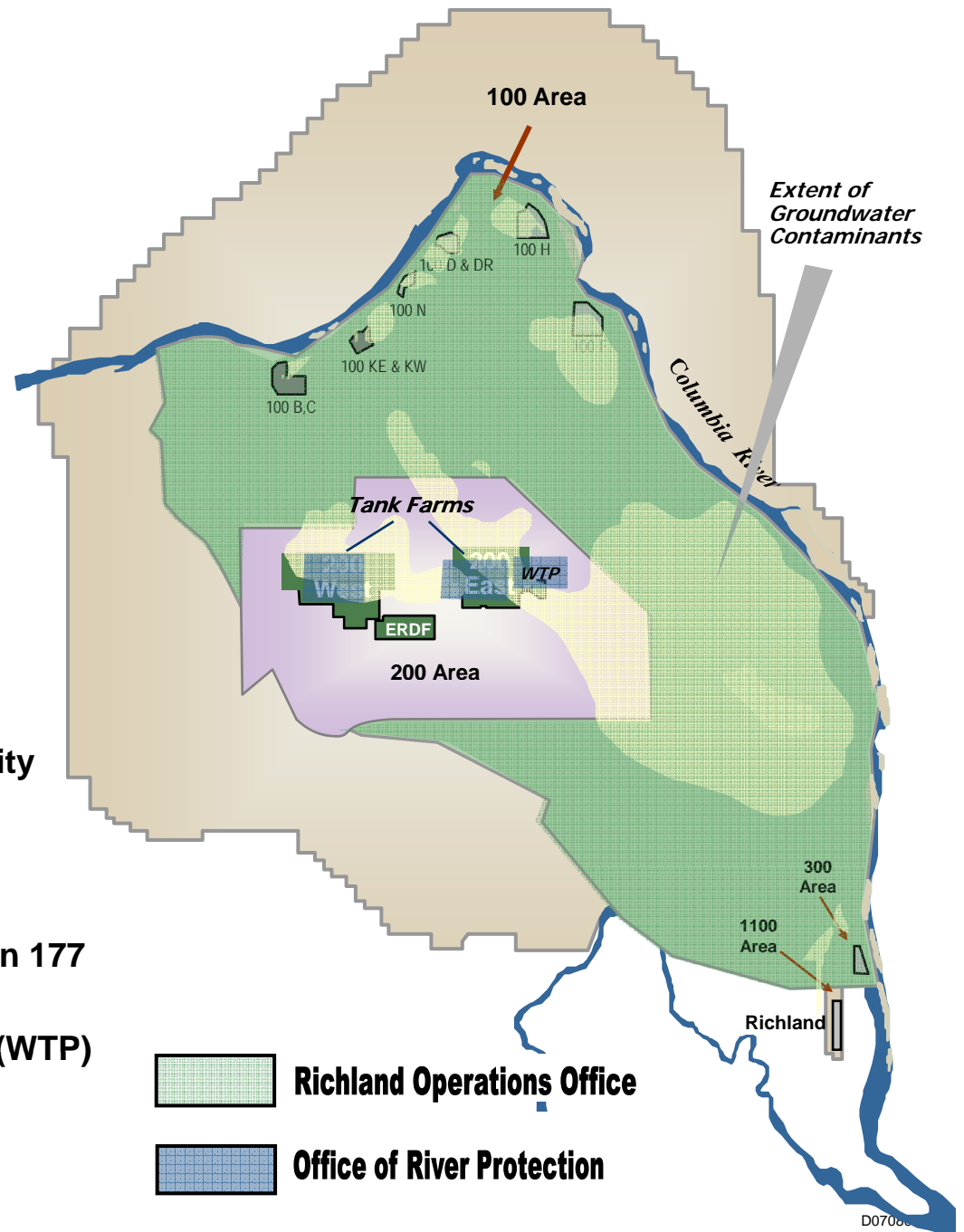
Cleanup Challenge

Richland Operations Office

- 2,100 metric tons of spent nuclear fuel
- 18 metric tons of plutonium bearing materials in various forms
- 80-square miles of contaminated groundwater
- ~25 million cubic feet of buried or stored solid waste in 175 waste trenches
- ~1,700 waste sites and 500 contaminated facilities, including five processing “canyons” and nine reactor complexes
- 1,936 capsules of cesium and strontium, containing 130 million curies of radioactivity

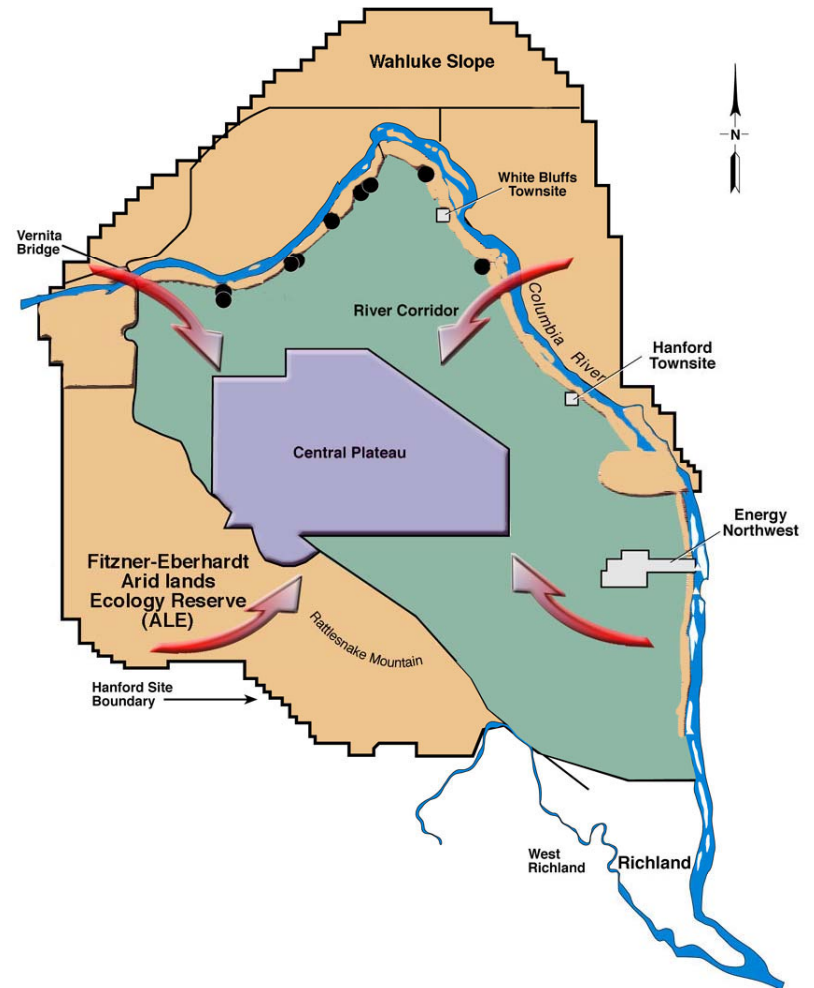
Office of River Protection

- More than 50 million gallons of tank waste in 177 underground storage tanks
- Construction of the Waste Treatment Plant (WTP)



Hanford Cleanup Strategy

- **Focus on activities that reduce risk**
 - Remove/stabilize high-risk materials
 - Deactivate and decommission excess facilities
 - Minimize long-term risks related to materials that will remain on-site
 - Work closely with regulators and the community to make decisions to guide and enable physical progress
 - Deploy comprehensive business approaches to improve performance

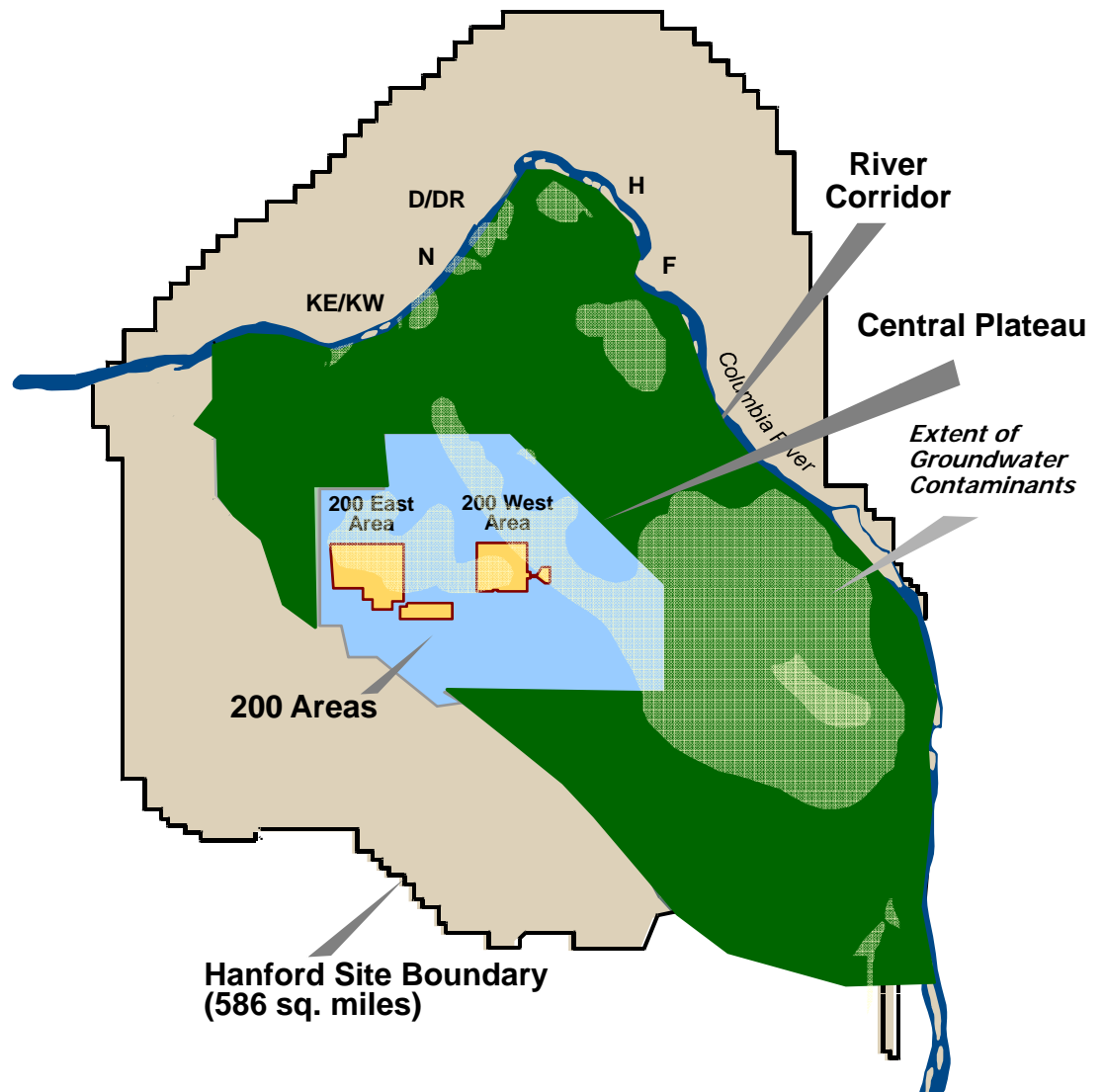
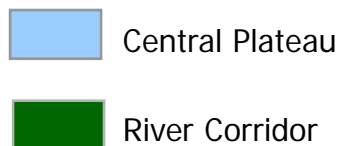


River Corridor Cleanup Goals

River Corridor

(218 square miles)

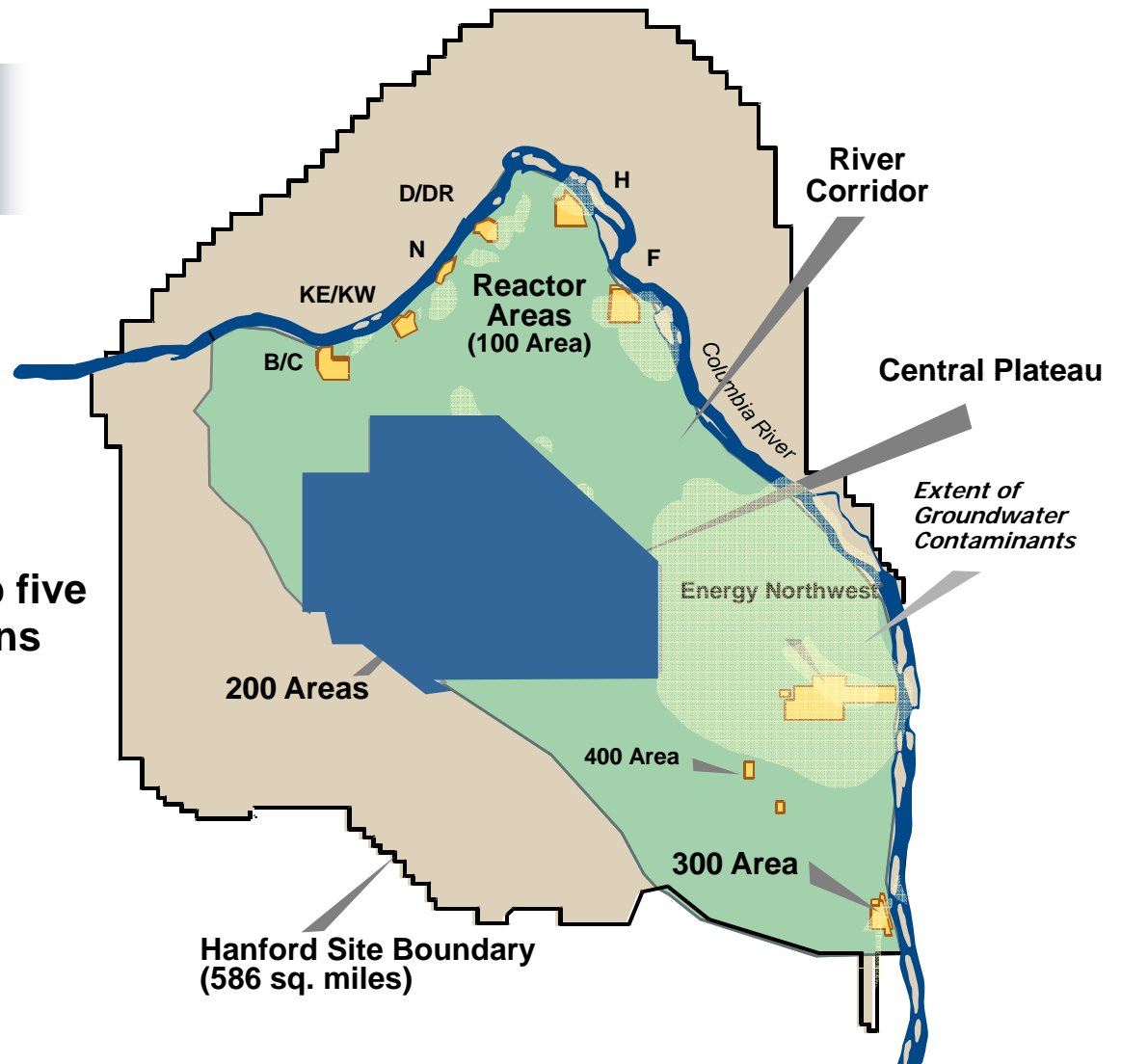
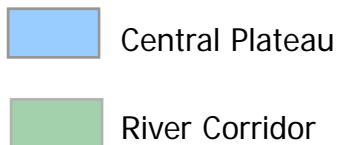
- Demolition of ~486 structures/facilities
- Remediation and closure of 761 waste sites
- Place nine reactors into interim safe storage configuration
- Remediate and treat groundwater plumes



Central Plateau Cleanup Goals

Central Plateau (75 square miles)

- Demolition of 950 structures/facilities
- Remediation and closure of 850 waste sites and burial grounds
- Remediate and clean up five large processing canyons
- Remediate and treat groundwater plumes



Hanford Cleanup Progress Status – 2007

Waste Retrieval & Disposal

Retrieved 6,133 cubic meters (~29,486 drum equivalents)



Implemented new misting system for open-air retrieval



Environmental Restoration Disposal Facility (ERDF)



Completed 359 (2469 cubic meters) transuranic waste shipments to WIPP



Hanford Cleanup Progress Status – 2007

River Corridor Building Demolition – 300 Area



Facility D4* Status

- Initial Characterization in Progress
- Ready for Deactivation / Deactivation in Progress
- Ready for Demolition / Demolition in Progress
- Demolition & Loadout Complete
- Demolished prior to RCCG
- Occupied by PNNL

Status Description

Initial Characterization in Progress

Historical site assessment and scoping surveys in progress.

**Ready for Deactivation /
Deactivation in Progress**

Historical site assessment and scoping surveys complete. Work packages in place.

**Ready for Demolition /
Demolition in Progress**

Haz. mat removal and equipment stripout complete. Sample analysis and waste profile complete.

* Decommissioning, Deactivation, Decontamination & Demolition

	<i>Planned</i>	<i>Completed</i>
Waste Sites	39	65
Buildings	34	104
Tons Disposed at ERDF	736,000 tons	946,000 tons disposed*

* However, surpassed 1 million tons in August

Hanford Cleanup Progress Status – 2007

Demolished the second of nine highly contaminated buildings at Plutonium Finishing Plant facilities



***Building 241-Z
Demolition
(2007)***



***Building 232-Z
Demolition
(2006)***

